



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/647,884	10/06/2000	Richard J. Titmuss	36-1381	5841

7590 04/22/2004

Nixon & Vanderhye  
8th Floor  
1100 North Glebe Road  
Arlington, VA 22201-4714

EXAMINER

JEAN, FRANTZ B

ART UNIT	PAPER NUMBER
2151	

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

7/1

# Office Action Summary

Application No.

09/647,884

Applicant(s)

TITMUSS ET AL.

Examiner

Frantz B. Jean

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 24-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 24-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7.9</u> . | 6) <input type="checkbox"/> Other: _____  |

This office action is in response to the amendment filed on 1/28/2004. Claims 1-22, 24-26 are pending in the application.

***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on 1/28/2003 and 2/18/2004 was filed after the mailing date of the office action on 8/28/2003. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-22 and 24-26 are rejected under 35 U.S.C. 103(a) as being Unpatentable over Mannings International Publication Number WO 96/07110 in view of Titmus R. John (hereinafter Titmus) International Publication Number WO 98/47295.

With respect to claim 1, Mannings teaches a method of storing and/or retrieving location-based information (page 3, lines 15- page 4, line 25), the method comprising: storing, in relation to which information storage is accessible (Fig. 1; page 3, lines 15- page 4, line 25; page 6, lines 20-24; page 16, lines 19-24); and selecting ones of said first localities to represent second localities for which information is to be stored and/or retrieved (page 6, lines 20-24; page 16, lines 19-24) such that: said first and second localities bear a predetermined locational relationship (Fig. 3, 6; page 5, lines 8-12; page 16, lines 19-24); and said first and second localities bear a predetermined relationship in size (Fig. 3, 6; page 5, lines 8-27; page 16, lines 19-24), characterized by the step of distributing said indexing nodes amongst a distributed network of data storage devices accessible simultaneously for users at a plurality of remote user terminals (Fig. 1, 6; page 3, line 15- page 4, line 25). However, Mannings fails to

Art Unit: 2151

explicitly elaborate on a distributed network of data storage devices accessible simultaneously from a plurality of remote user terminal, data defining a plurality of first localities. Titmus teaches the above features (see Titmus abstract; page 4 line 19 to page 7 line 9). It would have been obvious to one ordinary skill in the art at the time of the invention to have combined Titmus' features to Mannings because they would have a basis for various improvement to the well know information distribution systems (see Titmus page 5 lines 10-11).

With respect to claim 2, Mannings teaches a method according to claim 1, wherein said first localities are selected such that said first and second localities share at least one geographical location (Fig. 3; page 5, lines 8-27).

With respect to claim 4, Mannings teaches a method according to claim 1, wherein said data defines access nodes which include a node representing a relatively large locality and one or more nodes representing one or more relatively small localities which overlap said relatively large locality (Fig. 3; page 5, lines 8-27).

With respect to claim 5, Mannings teaches a method according to claim 4, wherein a plurality of said nodes representing relatively small localities form divisions of said relatively large locality (page 5, lines 8-27).

With respect to claim 6, Mannings teaches a method of storing location-based information, the method comprising: plurality of nodes including a higher level node responsible for a larger locality and lower level nodes responsible for smaller localities which overlap said larger locality (page 5, lines 8-27), indexing references to information source containing locality-specific information at said data access nodes, different information source references being indexed at said higher level node than at said lower level nodes (page 3, lines 15-30; page 5, lines 8-27); and transmitting said reference from said indexing nodes on request, (Fig. 1, 6; page 3, line 15- page 4, line 25). However, Mannings does not explicitly disclose defining, a distributed network of data storage devices accessible simultaneously from a plurality of remote user terminal, a plurality of data access nodes each of which is responsible for a predefined locality. Titmus discloses the above features (see Titmus abstract; page 4 line 19 to page 7 line 9). It would have been obvious to one ordinary skill in the art at the time of the invention to have combined Titmus' features to Mannings because they would have a basis for various improvement to the well know information distribution systems (see Titmus page 5 lines 10-11).

With respect to claim 7, Mannings teaches a method according to claim 6, wherein at least one information source reference is commonly indexed at said higher level node and said lower level nodes (page 5, lines 8-27).

With respect to claim 8, Mannings teaches a method of storing location-based information, the method comprising: indexing references to information sources containing locality-specific information at said data access nodes, one or more of such references being repeatedly indexed at different of said nodes (Fig. 1, 3; page 5, lines 8-33); and transmitting said references from said data access nodes on request, characterized by the step of distributing said

Art Unit: 2151

indexing nodes amongst a distributed network of data storage devices accessible simultaneously for users at a plurality of remote user terminals (Fig. 1, 6; page 3, line 15- page 4, line 25). However, Mannings does not explicitly disclose defining, a distributed network of data storage devices accessible simultaneously from a plurality of remote user terminal, a plurality of data access nodes each of which is responsible for a predefined locality. Titmus discloses the above features (see Titmus abstract; page 4 line 19 to page 7 line 9). It would have been obvious to one ordinary skill in the art at the time of the invention to have combined Titmus' features to Mannings because they would have a basis for various improvement to the well know information distribution systems (see Titmus page 5 lines 10-11).

With respect to claim 9, Mannings teaches a method according to claim 4, wherein said nodes are interlinked in a network structure (Fig. 1, 3).

With respect to claim 10, Mannings teaches a method according to claim 9, wherein said network structure is a hierarchical structure (Fig. 1,3; page 5, lines 8-27).

With respect to claim 16, Mannings teaches a method according to claim 4, comprising altering a distribution of said nodes amongst said data storage devices (page 5, line 28- page 6, line 3).

With respect to claim 17, Mannings teaches an apparatus for storing location-based information in accordance with the method of claim 1 (Fig. 1; page 4, lines 17-25; page 5, lines 28-33; page 6, lines 20-22).

With respect to claim 18, Mannings teaches a method of retrieving information for presentation to a user, the method comprising: defining a locality of interest to the user in dependence on both a location of the user and a speed of travel of the user (page 3, line 15- page 4, line 25; page 17, lines 26-29); With respect to claim 19, Mannings teaches a method according to claim 18, wherein the extent of the locality of interest of the user is altered in dependence on the speed of travel (page 17, lines 26-29). However, Mannings does not explicitly disclose selecting, a distributed network of data storage devices accessible simultaneously from a plurality of remote user terminal, from which locality-specific information may be retrieved, on the basis of the defined locality of interest. Titmus discloses the above features (see Titmus abstract; page 4 line 19 to page 7 line 9). It would have been obvious to one ordinary skill in the art at the time of the invention to have combined Titmus' features to Mannings because they would have a basis for various improvement to the well know information distribution systems (see Titmus page 5 lines 10-11).

With respect to claim 21, Mannings teaches a method according to claim 18, wherein the locality of interest is altered in dependence on the direction of travel of the user (Fig. 3, 4, 6; page 16, line 19- page 18, line 8).

With respect to claim 22, Mannings teaches a method according to claim 18, comprising deriving parameters relating to the travel of the user from a positioning signal receiver traveling with the user (page 11, lines 7-21; page 15, lines 15-20; page 18, lines 2-8).

Art Unit: 2151

With respect to claim 24, Mannings teaches a method according to claim 1, wherein said network of data storage devices comprises a plurality of servers interconnected by data links and forming a distributed processing environment (Fig. 1; page 8, lines 19-20).

With respect to claim 25, Mannings teaches an apparatus for storing location-based information, said apparatus comprising nodes which are referentially interlinked, each said data access node being provisioned with a locality for which it is responsible (Fig. 1; page 3, lines 15; page 4, line 25; page 6, lines 20-24; page 16, lines 19-24), and means for comparing the size of an input locality in relation to which information storage is to be accessed and a locality for which a said access node is responsible (Fig. 1, 3, 6; page 5, lines 827; page 16, lines 19-24). However, Mannings does not explicitly detail on a distributed network of data storage devices accessible simultaneously from a plurality of user terminals and defining data access nodes. Titmus discloses the above features (see Titmus abstract; page 4 line 19 to page 7 line 9). It would have been obvious to one ordinary skill in the art at the time of the invention to have combined Titmus' features to Mannings because they would have a basis for various improvement to the well know information distribution systems (see Titmus page 5 lines 10-11).

With respect to claim 26, Mannings teaches an apparatus according to claim 25, wherein said apparatus is reconfigurable by the addition of, or the removal of, one or more of said indexing nodes, so as to transfer responsibility from or to one or more other nodes with localities of responsibility sharing at least one geographical location (page 5, line 28- page 6, line 3).

#### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

With respect to claim 3, Mannings in combination with Titmus teach a method according to claim 1, but do not explicitly state wherein said first localities are selected such that said first and second localities are similar in size. It would have been obvious to a person of ordinary skill in the art at the time of the invention that the claimed first and second localities have similar sizes. One of ordinary skill in the art would recognize that the first locality to be used is selected based on the second locality, therefore both localities being in the same/similar location and having similar size (page 5, lines 21-23).

With respect to claim 11, Mannings in combination with Titmus teach a method according to claim 10, but do not explicitly state wherein said nodes are interlinked in parent/child relationships. It would have been obvious to a

Art Unit: 2151

person of ordinary skill in the art at the time of the invention that a parent/child relationship is a hierarchical relationship, and is therefore taught by Mannings (page 5, lines 8-27). One of ordinary skill in the art would recognize that the overlay areas, GPS satellite navigation, and the cellular telephone networks taught by Manning are hierarchical networks.

With respect to claim 12, Mannings in combination with Titmus teach a method according to claim 10, but do not explicitly state wherein said nodes are interlinked in sibling relationships. It would have been obvious to a person of ordinary skill in the art at the time of the invention that a sibling relationship is the equivalent of a network of cellular telephone towers/cells, or any other distributed network with distributed nodes/cells, and is therefore taught by Mannings (Fig. 1, 6; page 16, lines 19-24).

With respect to claim 13, Mannings in combination with Titmus teach a method according to claim 10, but do not explicitly state wherein said nodes are interlinked in uncle/nephew relationships. It would have been obvious to a person of ordinary skill in the art at the time of the invention that an uncle/nephew relationship is a hierarchical relationship, and is therefore taught by Mannings (page 5, lines 8-27). One of ordinary skill in the art would recognize that the overlay areas, GPS satellite navigation, and the cellular telephone networks taught by Manning are hierarchical networks.

With respect to claim 14, Mannings in combination with Titmus teach a method according to claim 10, but do not explicitly state wherein said nodes are interlinked in cousin/cousin relationships. It would have been obvious to a person of ordinary skill in the art at the time of the invention that a cousin/cousin relationship is the equivalent of a network of cellular telephone towers/cells, or any other distributed network with distributed nodes/cells, and is therefore taught by Mannings (Fig. 1, 6; page 16, lines 19-24).

With respect to claim 15, , Mannings in combination with Titmus teach a method according to claim 11, wherein said interlinking comprises a node holding a reference whereby the related node may be accessed (Mannings page 5, lines 8-27). It would have been obvious to a person of ordinary skill in the art at the time of the invention that this is also the equivalent of a hierarchical relationship in a distributed network.

With respect to claim 20, Mannings in combination with Titmus teach a method according to claim 19, but do not explicitly state wherein the extent of the locality of interest increases with the speed of travel. It would have been obvious to a person of ordinary skill in the art at the time of the invention that the faster the user or mobile unit is traveling, the greater the extent of the locality of interest. One of ordinary skill in the art would recognize that the user or mobile unit would move into different nodes/cells/zones etc. quicker at faster speeds, therefore causing a quicker increase in the extent of the locality of interest. This is important in the updating of location-specific information to a traveling user requesting the location-specific information.

Prior Art:

Art Unit: 2151

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 6,049,711 issued to Ben-Yehzekel et al.

U.S. Patent No. 6,157,841 issued to Bolduc et al. U.S. Patent No. 6,108,533 issued to Eirohoff Contact Information

### ***Conclusion***

Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 1/28/2004 and 2/28/2004 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609(B)(2)(i). Furthermore, this final is also necessitated by the amendment filed on 1/28/2004 (MPEP 706.07 (a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz B. Jean whose telephone number is 703 305 3970. The examiner can normally be reached on 8:30-6:00 M-f.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton B. Burgess can be reached on 703 305-4792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frantz Jean



**FRANTZ B. JEAN**  
**PRIMARY EXAMINER**